



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,389	05/26/2006	Abdulsalam Al-Mayahi	663073607	3744

25269 7590 05/24/2010
DYKEMA GOSSETT PLLC
FRANKLIN SQUARE, THIRD FLOOR WEST
1300 I STREET, NW
WASHINGTON, DC 20005

EXAMINER

FORTUNA, ANA M

ART UNIT	PAPER NUMBER
----------	--------------

1797

MAIL DATE	DELIVERY MODE
-----------	---------------

05/24/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Arguments

Applicant's arguments filed 2/12/10 have been fully considered but they are not persuasive. Applicant argues that the references teach adding the antiscaling agent to the first side of the membrane in contact with the concentrate feed, and not to the side with the osmotic solution, and that there is not motivation to add the antiscaling agents to the cell or chamber with the second solution with the osmotic agent, and that the second solution is a clean solution. However, the second solution contains salts such as magnesium sulfate hydrated ($\text{MgSO}_4 \cdot 6\text{H}_2\text{O}$), which salt can if in contact with the membrane for certain time stick to the membrane and cause fouling. Therefore, it would have been convenient by the skilled artisan to additionally provide antifouling agents on the feed side of the membrane, also provide scaling agents in the second solution to protect the membrane from scaling from the magnesium sulfate salts. Furthermore, since the second solution is further treated by a membrane to concentrate the second solution, the skilled in the art would have been motivated to provide the antifouling agent in the second solution in the chamber, or at a point before the nanofiltration membrane, to protect the nanofiltration membrane of scaling that can be produced by the magnesium sulfate salts in the second solution, as conventional in the art.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANA M. FORTUNA whose telephone number is (571)272-1141. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on 571-272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1797

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ANA M FORTUNA/
Primary Examiner, Art Unit 1797